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OPTICAL GRATING BASED MULTIPLEXER DEVICE

WITH POWER TAP CAPABILITY

Cross-Reference To Related Applications

5  
1/16/07  
This application is related to U.S. Serial No. 10/690,857, which  
is entitled "COMBINATION WAVELENGTH MULTIPLEXER AND WAVELENGTH  
STABILIZER" (Optovia 4), has a common assignee and two common  
inventors with the present application and is being filed  
concurrently with the present application.

now  
U.S.P.  
No. 6,937,795

10 Field of the Invention

The present invention relates to devices as, for example,  
transmitters and wavelength multiplexers and demultiplexers that  
utilize gratings (such as diffraction gratings, array waveguide  
gratings (AWG), etc.) wherein one or more proportional taps are  
needed for obtaining input and/or output power.

15 Background of the Invention

Many prior art devices requiring power taps utilize couplers  
to tap power off of the input and/or output signal power of the  
device. More recently, other arrangements have been devised to  
provide optical power taps.

20 U.S. Patent No. 5,748,815 (Hamel et al.), issued on May 5,  
1998, discloses an optical component adapted to monitor a multi-  
wavelength link for use as an add-drop multiplexer in optical  
networks. The optical component includes an input optical fiber  
for launching a multiplexed signal comprising a plurality of  
25 different wavelength signals from a zero diffraction order of a  
flat blazed grating towards the grating for dispersing the  
wavelength signals in several non-zero orders of diffraction. A